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Results of the sixth sampling (November 6, 2006) of the First-Stubble Sugarcane Maturity Test at the USDA-ARS Sugarcane Research Laboratory's Ardoyne Research Farm at Schriever, LA are attached. The study examines the natural ripening process and compares the results over a 5-yr period (2002 – 2006) for the same harvest dates; consequently, a glyphosate-containing ripener is not applied. Samples consist of 15, hand-cut stalks of clean, trash-free and properly topped cane from each of four replications. **When mechanically harvested, one can expect TRS/TC levels to be 10 to 20% lower as a result of additional trash in the cane.** The first-stubble study includes eight released Louisiana varieties: LCP 85-384, HoCP 85-845, HoCP 91-555, Ho 95-988, HoCP 96-540, L 97-128, L 99-226, and L 99-233 and one Florida variety, CP 89-2143. The variety CP 70-321 is no longer included in the maturity studies because of declining acreage.

Little growth occurred during the 2-week interim since the October 23<sup>rd</sup> sampling as evidenced by the fact that average stalk heights and weights are relatively unchanged. However, first-stubble stalk weights in 2006 are still higher for all of the varieties included in this test since 2002. The Florida variety, CP 89-2143, showed somewhat of a growth spurt with an increase in stalk height of 11 inches and weight of 0.15 lbs. As a result, it no longer is the shortest variety and has one of the highest stalk weights. Brix, sucrose, and purity percentages changed slightly since the previous sampling with the average resulting increase in TRS/TC being approximately 12 lbs/TC. As is typical for this time of year, varietal differences in TRS/TC are minimal. Individually, HoCP 91-555 and Ho 95-988 and the newly released variety L 99-233 had the greatest increases in TRS/TC; not unexpected since they had the lowest sugar levels previously. The newly released variety L 99-226 has shown a tendency to continue to accumulate sugar as the season progresses. This trend continues in 2006 with L 99-226 now producing the highest sugar recoveries of the varieties in this test. The Florida variety, CP 89-2143, continues to lag behind the Louisiana varieties when it comes to sugar recovery.

The next sampling of the maturity test is scheduled for November 20<sup>th</sup>.

**Reminder.** If you would like to discontinue your receipt of these reports in 2006 or if you know of individuals who would like to begin receiving this information in 2006, please contact Mrs. Sandy Roberts by email ([sroberts@srcc.ars.usda.gov](mailto:sroberts@srcc.ars.usda.gov)). Emailing insures address accuracy.

*Maturity study reports are prepared by Dr. Ed Richard of the USDA-ARS Sugarcane Research Unit.*

***Good luck with your 2006 Harvest Season!!***



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Variety	Year	Stalk <sup>2</sup>				Normal juice <sup>3</sup>			Sugar yield TRS (lb.)	Previous sample date <sup>4</sup>	TRS change from previous sample (lb.)
		Wt. (lb.)	Lh. (in.)	Dia. (in.)	Density (g/cm <sup>3</sup> )	Bx. (%)	Su. (%)	Pu. (%)		TRS (lb.)	
LCP 85-384	2006	2.0	100	0.81	1.50	17.58	14.92	84.90	277.6	263.4	14.2
	2005	1.6	82	0.74	1.16	18.00	15.11	83.93	279.4	251.0	28.4
	2004	1.8	100	---	---	17.53	14.70	83.84	271.8	265.0	6.8
	2003	1.6	93	---	---	17.20	14.49	84.22	268.4	255.5	12.9
	2002	1.8	96	---	---	16.45	13.78	83.78	254.6	234.1	20.5
HoCP 85-845	2006	2.3	91	0.84	1.14	17.42	14.81	85.01	275.5	276.8	-1.3
	2005	1.8	88	0.80	1.16	17.40	14.65	84.21	271.5	260.6	10.9
	2004	2.1	100	---	---	17.53	14.75	84.14	273.1	264.4	8.7
	2003	1.9	85	---	---	17.60	15.00	85.24	279.6	271.5	8.1
	2002	2.1	95	---	---	16.91	14.32	84.69	266.1	238.4	27.6
CP 89-2143	2006	2.7	99	0.98	1.05	16.67	14.29	85.71	261.5	244.9	16.6
	2005	---	---	---	---	---	---	---	---	---	---
	2004	---	---	---	---	---	---	---	---	---	---
	2003	---	---	---	---	---	---	---	---	---	---
	2002	---	---	---	---	---	---	---	---	---	---
HoCP 91-555	2006	1.9	97	0.76	1.17	18.08	15.51	85.77	281.4	259.7	21.7
	2005	1.7	92	0.77	1.10	18.22	15.12	82.96	275.4	261.3	14.1
	2004	1.8	100	---	---	18.46	15.49	83.92	283.8	270.7	13.1
	2003	1.7	92	---	---	18.50	15.64	84.50	287.4	278.6	8.8
	2002	1.9	89	---	---	17.11	14.26	83.32	260.5	245.3	15.2
Ho 95-988	2006	2.3	101	0.85	1.13	17.58	14.99	85.30	279.4	255.9	23.5
	2005	2.3	88	0.92	1.04	17.31	14.50	83.79	268.1	251.6	16.5
	2004	---	---	---	---	---	---	---	---	---	---
	2003	---	---	---	---	---	---	---	---	---	---
	2002	---	---	---	---	---	---	---	---	---	---
HoCP 96-540	2006	2.4	104	0.87	1.12	17.22	14.48	84.06	270.7	258.1	12.6
	2005	2.0	96	0.80	1.17	17.27	14.31	82.90	265.9	249.2	16.7
	2004	2.2	102	---	---	17.24	14.10	81.76	260.1	250.3	9.8
	2003	2.1	91	---	---	17.35	14.55	83.81	271.6	255.5	16.1
	2002	2.2	94	---	---	16.84	14.00	83.10	252.8	227.7	25.2
L 97-128	2006	2.5	114	0.87	1.02	17.93	15.17	84.59	284.4	275.7	8.7
	2005	2.0	94	0.82	1.10	17.95	14.93	83.17	277.7	256.6	21.1
	2004	2.4	108	---	---	18.31	15.40	84.12	287.9	291.7	-3.8
	2003	2.0	93	---	---	18.95	16.22	85.60	305.7	297.6	8.1
	2002	---	---	---	---	---	---	---	---	---	---
L 99-226	2006	2.7	108	0.89	1.11	18.04	15.47	85.75	291.8	275.4	16.4
	2005	2.4	94	0.87	1.12	18.13	15.33	84.57	287.4	261.0	26.4
	2004	---	---	---	---	---	---	---	---	---	---
	2003	---	---	---	---						

Maturity studies on first-stubble cane grown on mixed land at the Ardoyne Farm, USDA-ARS, SRRC, Sugarcane Research Unit, Houma, LA, November 6, 2006<sup>1</sup>.

Variety	Year	Stalk <sup>2</sup>				Normal juice <sup>3</sup>			Sugar yield TRS (lb.)	Previous sample date <sup>4</sup> TRS (lb.)	TRS change from previous sample (lb.)
		Wt. (lb.)	Lh. (in.)	Dia. (in.)	Density (g/cm3)	Bx. (%)	Su. (%)	Pu. (%)			
L 99-233	2006	2.0	112	0.78	1.05	17.29	14.50	83.87	268.1	244.3	23.8
	2005	1.6	94	0.74	1.05	17.31	14.51	83.81	268.2	254.4	13.8
	2004	1.9	110	---	---	17.73	14.64	82.54	268.8	261.3	7.4
	2003	---	---	---	---	---	---	---	---	---	---
	2002	---	---	---	---	---	---	---	---	---	---
Averages <sup>5</sup>	2006	2.1	98	0.82	1.23	17.58	14.93	84.94	276.3	264.5	11.8
	2005	1.8	91	0.79	1.12	17.53	14.66	83.64	271.1	254.9	16.2
	2004	2.1	103	---	---	17.72	14.79	83.44	273.1	266.6	6.5
	2003	1.9	91	---	---	17.73	15.03	84.71	279.7	270.7	8.9
	2002	2.1	94	---	---	16.58	13.82	83.29	253.2	234.8	18.4

<sup>1</sup> Data for each parameter represents the average of four replications of 15 stalks each.

<sup>2</sup> Stalk diameter and density based on a subsample consisting of 8 randomly selected stalks from the 15-stalk sample of each rep.

<sup>3</sup> Brix factor = .8854; Sucrose factor = .8105.

<sup>4</sup> Previous sample date was September 12, 2005.

<sup>5</sup> Averages are based only on varieties included in previous year's first-stubble maturity study (LCP 85-384, HoCP 85-845, HoCP 91-555, and HoCP 96-540).